

**UNITED STATES DISTRICT COURT  
EASTERN DISTRICT OF MISSOURI  
EASTERN DIVISION**

UNITED STATES OF AMERICA,

Plaintiff,

SIERRA CLUB,

Plaintiff-Intervenor,

v.

AMEREN MISSOURI,

Defendant.

Civil Action No. 4:11-cv-00077-RWS

**PLAINTIFFS' MEMORANDUM IN SUPPORT OF THEIR  
MOTION *IN LIMINE* TO LIMIT IRRELEVANT EVIDENCE  
REGARDING CAA PROVISIONS NOT AT ISSUE IN THIS CASE**

## INTRODUCTION

Under the Clean Air Act’s PSD program, a projected SO<sub>2</sub> emissions increase of 40 tons per year triggers permitting and pollution-control obligations. *See United States v. Ameren Missouri*, 229 F. Supp. 3d 906, 986 (E.D. Mo. 2017) (citing 40 C.F.R. § 52.21(b)(23)). Now, having failed to permit and control its Rush Island plant, Ameren is preparing to argue its over-160,000 excess tons of SO<sub>2</sub> pollution were harmless. Judging by the expert reports it disclosed and the exhibits it identified, the Company aims to minimize Rush Island’s decade of illegal pollution by comparing it to something even bigger: air pollution levels across entire geographic regions. But those regional levels—levels to which thousands of individual sources contribute—are regulated under the Act’s National Ambient Air Quality Standards (NAAQS), provisions which are not at issue here.

To be sure, air quality improvements over the last twenty years toward “attainment” with the NAAQS is one of the great success stories of modern environmental regulation. But the Clean Air Act’s obligations are not fungible. A suggestion of compliance with one provision does not excuse the violation of another. Indeed, the text of the statute is blunt on this point: the PSD program imposes pollution control obligations “*notwithstanding* attainment and maintenance of all [NAAQS].” 42 U.S.C. § 7470. Moreover, when the rest of the country raced to meet regional air quality targets, Ameren lagged behind. In 2001, Rush Island was ranked 161<sup>st</sup> among power plants for annual SO<sub>2</sub> pollution; in 2017, Rush Island was *tenth*. The cumulative effort of hundreds of *other* industrial polluters under *other* obligations does not excuse—or diminish—an individual source’s illegal pollution.

Although a brief discussion of the NAAQS may provide appropriate background information at the remedy trial, Ameren’s expert reports and proposed exhibits reveal its primary

defense relies on a faulty legal premise, specifically, that the NAAQS establish air quality thresholds below which air pollution is harmless. In fact, the PSD program was designed to ensure the minimum air quality standards set by the NAAQS did not become the upper limit on public health protections under the Clean Air Act. *See Sierra Club v. Otter Tail Power Co.*, 615 F.3d 1008, 1011 (8th Cir. 2010) (citing *Sierra Club v. Thomas*, 828 F.2d 783, 785 (D.C. Cir. 1987)). Accordingly, and in order to keep the trial focused on those provisions of the Act actually at issue, this Court should limit testimony and evidence offered in contradiction of the Congressional statement of purpose enshrined in the statute: to protect the public health and welfare from any actual or potential adverse effect . . . of air pollution” notwithstanding attainment of the national air quality standards.

## **BACKGROUND**

The Clean Air Act (CAA) of 1970 established “federal authority to combat air pollution and directed EPA to devise National Ambient Air Quality Standards (NAAQS) limiting various pollutants, which the States were obliged to implement and enforce.” *Environmental Defense v. Duke Energy Corp.* 549 U.S. 561, 566 (2007) (citations omitted). The Act requires the NAAQS, which are set after EPA undertakes a sweeping “integrated science assessment” of current air pollution research, to establish ambient air quality standards “the attainment and maintenance of which . . . are requisite to protect the public health” and “public welfare.” 42 U.S.C. § 7409(b). These NAAQS set a “regional limit for all [pollution] from all sources within [a] region”—not a “standard against which a single source is measured.” *United States v. Cinergy*, 618 F. Supp. 2d 942, 964 (S.D. Ind. 2009), *rev’d on other grounds by* 623 F.3d 455 (7th Cir. 2010).

But not long after it was enacted, Congress recognized the NAAQS did too little to protect air quality. *See Hawaiian Elec. Co. v. EPA (HECO)*, 723 F.2d 1440, 1446–47 (9th Cir.

1984) (“Congress repeatedly emphasized that NAAQS alone were insufficient to protect public health and welfare.”). In preparing to append the PSD program to the CAA, Congress noted:

in no case is there evidence that the [NAAQS] threshold levels have a clear physiological meaning, in the sense that there are genuine adverse health effects at and above some level of pollution, but no effects at all below that level. On the contrary, evidence indicates that the amount of health damage varies with the upward and downward variations in the concentration of the pollutant, with no sharp lower limit.

Committee Report on the 1977 CAA Amendments, H.R. Rep. 95-294, at 110 (May 12, 1977).<sup>1</sup>

Moreover, as the Eighth Circuit later explained, merely setting ambient air quality goals “failed to improve air quality in those areas that had already attained the minimum standards of the NAAQS because polluters had no incentive to diminish emissions below the established limits.” *Otter Tail*, 615 F.3d at 1011.

In light of this problem, Congress “amended the CAA . . . in 1977 to add the [PSD] program, which seeks to ensure that the ‘air quality floor’ established by the NAAQS does not ‘in effect become a ceiling.’” *Id.* (quoting *Thomas*, 828 F.2d at 785). As its very first lines proclaim, the PSD program aims “to protect public health and welfare from any actual or potential adverse effect . . . from air pollution . . . **notwithstanding** attainment and maintenance of all national ambient air quality standards.” 42 U.S.C. § 7470 (emphasis added); *see also* H.R. Rep. 95-294 at 8 (noting the PSD section aimed to “protect health from harmful exposures occurring at levels below the ambient standards”). Section 165(a), 42 U.S.C. § 7475(a), of the PSD provisions effectuates this goal by setting forth requirements for modified sources of air pollution. Pertinent here, modification of a major source is prohibited *unless*:

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<sup>1</sup> *See also id.* at 112 (“The idea that the national primary standards are adequate to protect the health of the public has been belied. . . . ‘[I]t is impossible at this time to establish an ambient air concentration for any pollutant—other than zero—below which it is certain that no human beings will be adversely affected.’” (quotations omitted)).

- (1) a permit has been issued for such proposed facility in accordance with this part setting forth emission limitations for such facility . . .
- (3) the owner or operator of such facility demonstrates . . . that emissions from construction or operation of such facility will not cause, or contribute to, air pollution in excess of [among other things] any . . . national ambient air quality standard [NAAQS] in any air quality control region . . .
- (4) the proposed facility is subject to the best available control technology for each pollutant subject to regulation . . . .

42 U.S.C. § 7475(a). As the statute's language and structure make clear, these are co-equal requirements, with no one mandate subsuming any other.

### **AMEREN'S IRRELEVANT PROFFER**

It appears that several Ameren witnesses will argue that there is no harm from Rush Island emissions if overall pollution levels meet the NAAQS. This is not an argument founded on science, but rather a presentation of their lay interpretation of the Clean Air Act. For example, Ameren's economist zeroes-out the benefits associated with reducing pollution in areas already attaining the NAAQS because, he says, the NAAQS establish a threshold below which "there would be no certain health benefit."<sup>2</sup> Ameren's air quality modeler compares his Rush Island modeling results to NAAQS levels because, as he says, establishing safe air quality levels is "what EPA does with the NAAQS."<sup>3</sup> Even one of Ameren's toxicologists leans on legal interpretation to insist that, because "the Rush Island Power Plant's excess SO<sub>2</sub> emissions did not contribute to exceedances of the PM<sub>2.5</sub> NAAQS in the counties closest to the power plant . . .

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<sup>2</sup> July 3, 2018 Deposition of Ameren Expert Mark Berkman (excerpted at Ex. 1) at 84:6–11; *see also id.* at 76:22–78:8, 82:13–83:5, 90:15–92:20.

<sup>3</sup> June 11, 2018 Deposition of Ameren Expert Ralph Morris (excerpted at Ex. 2) at 162:4–163:11; *see also id.* at 88:19–89:17; 153:19–25.

there is no basis to conclude that the excess SO<sub>2</sub> emissions from the Rush Island Power Plant posed a threat to human health.”<sup>4</sup>

As a corollary argument, several of these witnesses will also argue that pollution impacts below EPA’s “significant impact levels” are harmless—even though the SILs were developed to measure source contributions to NAAQS measurements.<sup>5</sup> Once again, these presentations are not about what the science shows so much as they are about what, in their opinion, the regulatory tool was designed to accomplish. Moreover, this legal opinion testimony now promises to be flanked by dozens of pages of designated deposition testimony<sup>6</sup> and by reams of proposed exhibits, including statutory provisions, agency rulemaking documents, and guidance papers describing the development and implementation of the NAAQS or associated requirements;<sup>7</sup> monitoring network plans and nonattainment area management plans;<sup>8</sup> or documents presenting national<sup>9</sup> or local<sup>10</sup> air quality trends over time.

## ARGUMENT

The prohibition against expert-given legal opinions is “a kind of axiomatic principle” of evidence—indeed, “every circuit has explicitly held that experts may not invade the court’s

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<sup>4</sup> Expert Report of Peter A. Valberg (excerpted at Ex. 3) at 8; *see also id.* at 3.

<sup>5</sup> *See, e.g., id.* at 5.

<sup>6</sup> Ameren’s affirmative deposition designations (ECF No. 1050) include substantial deposition testimony it took on these topics with EPA witnesses Jon Knodel and Andy Hawkins.

<sup>7</sup> *See* Ameren Missouri’s Trial Exhibit List – Remedy Phase (ECF No. 1053) (highlighted at Ex. 4), listing proposed exhibits AS, DS, EP, EQ, ER, ES, ET, EU, EV, FE, FH, FI, FJ, GZ, HA, HB, HC, HE, HF, HG, HH, HI, HJ, HK, HL, HM, HN, LX, MC, MD, ME, MF, MG, NB, NC, ND, OA, OB, OC, OD, QQ, SK.

<sup>8</sup> *Id.*, listing, inter alia, exhibits MJ, MK, ML, MM, MN, MO, MP, MQ, MR, MS, MT, MU, MV, NH, NI, QR, QS, QT, QU, TS.

<sup>9</sup> *Id.*, listing LY, MW, MX, MY, MZ, QV.

<sup>10</sup> *Id.*, listing AQ, HD, IV, LZ, MH, MI.

province by testifying on issues of law.” *In re Initial Public Offering Securities Litigation*, 174 F. Supp. 2d 61, 64 (S.D.N.Y. 2001). Here, expert testimony regarding NAAQS regulations and evidence of ambient air quality concentrations is background material for this trial at best, a waste of time at worst. Efforts to evaluate pollution under EPA’s “significant impact levels”—regulatory tools which implement NAAQS protections—are equally irrelevant. And Ameren’s preparations to muster cumulative evidence in support of its invalid legal theories only compounds the problem. *See* Fed. R. Civ. P. 403.

**I. The Text, Structure, Purpose, and History Of The PSD Program Dictate The Regulation Of SO<sub>2</sub> In Areas Attaining National Ambient Air Quality Standards.**

Many of Ameren’s proffered experts rely on the false premise that NAAQS attainment is a proxy for risk-free pollution levels. That assertion runs aground on Congress’ explicit decision to regulate air pollution “*notwithstanding* attainment and maintenance of all national ambient air quality standards.” 42 U.S.C. § 7470 (emphasis added); *see also LaFleur v. Whitman*, 300 F.3d 256, 270 (2d Cir. 2002) (“Congress has recognized that there are potentially adverse affects from air pollution at levels *below* the NAAQS” (citing § 7470(1); emphasis original)).<sup>11</sup> Ameren hopes to paint (and paint and paint) attainment of the national ambient air quality standards as a defense to a PSD violation; in fact, the plain language of the Act makes clear that Congress installed the PSD program to address harm to public health from pollution in areas attaining and maintaining regional air quality standards.

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<sup>11</sup> Indeed, when it adopted the PSD program, Congress disavowed the notion that the NAAQS were a threshold below which regulated pollutants had no effect on human health and welfare:

In the absence of evidence to the contrary, . . . no threshold should be stipulated below which exposure is harmless. Instead, the response to exposure should be assumed to be directly related to successively greater or lesser concentrations of the toxic materials and the level of resistance of those exposed.

H.R. Rep. 95-294 at 111.

To be sure, the statute still requires the NAAQS establish air quality levels for different pollutants that must be attained and maintained for the protection of public health and welfare. 42 U.S.C. § 7409(b). But because a pollutant like fine particulate matter is a “nonthreshold pollutant” for which there is no airborne concentration level that does not pose risks to human life and health, *see* 78 Fed. Reg. 3085, 3119 (Jan. 15, 2013), EPA must “make judgements of degree” to set the NAAQS. *Accord Whitman v. American Trucking Assoc.*, 531 U.S. 457, 475 (2001). When faced with the task of establishing air quality standards for nonthreshold pollutants like PM<sub>2.5</sub>, EPA must apply a policy of “*practicable* protection of health,” rather than set a level that would ensure zero-risk for the people of the United States. H.R. Rep. 95-294 at 127–28 (emphasis added). Congress understood that, *see id.*, and the judiciary has accepted that.<sup>12</sup> The NAAQS have not been viewed as “zero-risk” levels since the time Congress explicitly enacted the PSD program to address that fundamental fact that *there is no such thing as a zero-risk threshold* for many pollutants.

Ameren is not the first company to try to use the NAAQS thresholds to shield against or limit PSD obligations. Hawaiian Electric (HECO) maintained before the Ninth Circuit that EPA could not “impose emission restrictions that are more stringent than necessary to protect NAAQS” in a PSD permit. *Hawaiian Electric v. EPA (HECO)*, 723 F.2d 1440, 1446-47 (9th Cir. 1984).<sup>13</sup> The court brushed the argument aside, noting “Congress repeatedly emphasized that NAAQS alone were insufficient to protect public health and welfare” and describing the

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<sup>12</sup> *American Trucking Ass’n v. EPA*, 283 F.3d 355, 369–70 (D.C. Cir. 2002) (setting the NAAQS does not require EPA to “definitively identify pollutant levels below which risks to public health are negligible”); *North Carolina v. TVA*, 593 F. Supp. 2d 812, 822 n.6 (W.D.N.C. 2009) (noting that “EPA does not purport to set the NAAQS at a level which would entirely preclude negative health outcomes”), *rev’d on other grounds* 615 F.3d 291 (4th Cir. 2010).

<sup>13</sup> *See also Sierra Club v. Thomas*, 658 F. Supp. 165, 174 n.9 (N.D. Cal. 1987).



“‘shortcomings and limitations’ of the ambient air standards” that Congress endeavored to address. *Id.* After reviewing the Act’s language and legislative history, the court concluded:

In sum, Congress found that it was important to reduce pollution levels below those mandated by the standards and that the best means of doing so was to require the installation of BACT on all sources which would otherwise increase pollution. Therefore, it is absurd for HECO to maintain that EPA may not, through a PSD permit, require pollution controls which yield air quality better than NAAQS.

*Id.* Similarly, it is absurd for Ameren to maintain that, though the emissions above BACT levels were proscribed the Act, the harm from those excess emissions should be—as a matter of law—ignored entirely. *Cf. HECO*, 723 F.2d at 1447. Ameren’s effort to discount excess emissions in NAAQS-attainment areas contradicts the statute’s language, structure, and purpose—and seeks to transform the ambient air quality standards from the air quality floor intended by Congress into a ceiling. *Contra Otter Tail*, 615 F.3d at 1011; *see also Cinergy*, 618 F. Supp. 2d at 964.

## **II. EPA’s “Significant Impact Levels” Implement Statutory Obligations Independent Of And Irrelevant To The Issues Presented In This Case.**

In parallel with its argument that pollution below NAAQS-levels is harmless, Ameren appears prepared to argue that pollution impacts below EPA’s “significant impact levels” (or SILs) are harmless. But SILs are just a regulatory tool for assessing a source’s relationship to various NAAQS-related policy thresholds under CAA Section 165(a)(3). Where Ameren’s NAAQS-based argument is fundamentally irrelevant, its SILs argument is one step even further removed from issues presented by this case.

As noted earlier, Section 165(a)(3) requires operators looking to implement a major modification at its facilities to demonstrate the pollution from the modified facility will not cause or contribute to a downwind NAAQS exceedance. To help permitting agencies evaluate the “cause or contribute” question under subsection (a)(3), EPA established the SILs as a set of pollution contribution levels against which to compare a source’s emissions. *See* Guidance on

Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Program (Apr. 17, 2018) (Ex. 5) at 3, 5. But “[t]he SIL values identified by the EPA have no practical effect unless and until permitting authorities decide to use those values in particular permitting actions.” *Id.* at 3–4. Meanwhile, subsection (a)(4) dictates that new and modified sources install and operate BACT, the cornerstone requirement implementing Congress’ intent that harmful pollution be avoided even in NAAQS-attainment areas. As co-equal requirements of the PSD permitting program, (a)(3) and (a)(4) set out a common-sense approach to regulating pollution. If a modified source agrees to install and operate best available pollution control technology as required by (a)(4), but it would nonetheless cause or contribute to a downwind NAAQS violation once up and running, then additional emissions reductions may be required in order to satisfy (a)(3). Similarly, even where a modified source does not present a threat to a downwind area’s attainment status as evaluated under (a)(3), it must still implement BACT to protect the public health and welfare from harmful air pollution in attainment areas under (a)(4), just as Congress intended.

Just as the NAAQS do not establish a “zero-risk” threshold under which pollution is safe, the SILs do not establish a level below which the harm from a facility’s pollution is undetectable. The SILs are, at bottom, a compliance demonstration tool, helping permit applicants and permitting authorities determine whether additional air quality modeling of a proposed source is needed before a permit is issued, or whether *additional* reductions—beyond those the PSD permit would normally impose in the form of BACT emissions limitations—might be required before a permit could issue. *See, e.g.*, EPA’s New Source Review Workshop Manual (excerpted at Ex. 6) at C.52. Ultimately, Ameren’s argument is nothing more than HECO’s Ninth Circuit argument dressed in regulatory—rather than statutory—language. There, HECO tried to argue

pollution that did not lead to exceedances of the NAAQS could not be controlled under PSD because EPA had already said those emissions were safe. *HECO*, 723 F.2d at 1446. The court called the argument “absurd.” Here, Ameren wants (its experts) to argue that, if Rush Island is not “causing or contributing” to downwind nonattainment violations under Section 165(a)(3), then it should not be required to operate BACT under Section 165(a)(4). But subsection (a)(3) imposes a distinct requirement from (a)(4). And compliance with (a)(3)—even if it could be shown by simply comparing emissions impacts to a SIL—cannot excuse Ameren’s violation of (a)(4).

### CONCLUSIONS

With its irrelevant proffer, Ameren appears poised to argue that pollution levels that do not meet improperly-applied thresholds is harmless as a matter of law. But that argument fails as a matter of law. Air pollution is not harmless—not even air pollution in those regions that have attained the National Ambient Air Quality Standards. Congress explicitly recognized as much when it amended the Clean Air Act to add the PSD program. Plaintiffs ask this Court exclude improper legal testimony to the contrary, and limit discussion of the NAAQS and regional air quality to pertinent background information in order to keep the case focused on addressing Ameren’s violations of the PSD program.

Dated: March 27, 2018

Respectfully Submitted,

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**CERTIFICATE OF SERVICE**

I hereby certify that on March 27, 2019 I served the foregoing with the Clerk of Court using the CM/ECF system.

/s/ Elias L. Quinn

ELIAS L. QUINN